

Application No. 10/730,790
Amendment Dated June 15, 2006
Reply to Office Action of March 20, 2006

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. Canceled.

2. Canceled

3. (Currently Amended) The method for manufacturing a rod with an optical thin film according to claim 2, further comprising:

A method for manufacturing a rod with an optical thin film wherein a plurality of rods are integrally fixed with a resin so as to have axes running in parallel to one another, wherein the rods each have a circular cross section and are aligned in parallel to and in contact with one another, and the resin is a thermoplastic resin, the method comprising sequentially performing:

forming a rod block by allowing the resin to enter gaps between adjacent rods to thereby fix the rods to one another;

cutting the rods into a predetermined length;

polishing the cut endfaces of the rods;

forming an optical thin film on the polished endfaces of the rods, wherein the resin has a melting point higher than the temperature to which the rods are exposed during said forming; and

separating the rods from one another by dissolving or swelling the thermoplastic resin with a solvent to dismantle the rod block after completion of said forming an optical thin film.

4. (Original) The method for manufacturing a rod with an optical thin film according to claim 3, wherein, in said separating the rods from one another, auxiliary energy is used.

5. (Currently Amended) The method for manufacturing a rod with an optical thin film according to claim [[1]] 3, wherein the rods are rod lens performs each having a predetermined refractive index distribution.

6. Canceled.

7. Canceled.

8. (Currently Amended) ~~The method for manufacturing a rod with an optical thin film according to claim 6,~~

A method for manufacturing a rod with an optical thin film, the method comprising:
forming a rod block by arranging a plurality of rods each having a circular cross section in parallel to one another along the axis of each rod, and by allowing a resin to enter gaps between the rods to fix the rods to one another, wherein the rods are rod lens preforms each having a predetermined refractive index distribution, wherein in said forming a rod block, the rods are arranged along a sheet made of the resin and the resin is melted in this state and then hardened to fix the rods to one another with the resin;

cutting the rod block into a predetermined length;

polishing the endfaces of each rod positioned on the cut endface of the rod block;

forming an optical thin film on the polished endfaces of each rod, wherein the resin has a

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melting point higher than the temperature during said forming of the optical film; and

separating the rods from one another by removing the resin from the rod block.

9. (Currently Amended) The method for manufacturing a rod with an optical thin film according to claim [[6]] 8, wherein in said separating the rods from one another, a solvent for dissolving the resin and auxiliary energy for accelerating the dissolution of the resin is used.

Claims 10 – 14. Canceled.